

THE RELATIONSHIP BETWEEN SEX EDUCATION PROGRAMS AND
DROPPING OUT OF HIGH SCHOOL DUE TO PREGNANCY

An abstract of a Field Report by
David J. Kissinger
August 1975
Drake University
Advisor: Dr. W. C. Williams

The problem. Does a relationship exist between enrollment in sex education courses or programs and dropping out of school due to pregnancy?

Procedure. Public schools in Iowa were selected for the random sampling according to size as determined by average daily membership. A questionnaire devised by the investigator was sent to all schools in the sample. The questionnaire was designed for the following purposes: (1) To determine if a sex education program was offered at each school; (2) To determine the total female membership; (3) To determine the number of pregnant dropout students of each school during the 1973-1974 school year; and (4) To determine the percent of dropouts who had taken a sex education course at some time during the high school career. The information was analyzed to see if schools that offered sex education had a lower dropout rate due to pregnancy.

Findings. It was found that the dropout rates for females exposed to sex education was lower than those females who were not exposed to sex education.

Recommendations. It is recommended that all schools establish a sex education program to fit the needs of the specific students, school, and community.

THE RELATIONSHIP BETWEEN SEX EDUCATION PROGRAMS AND
DROPPING OUT OF HIGH SCHOOL DUE TO PREGNANCY

A Field Report
Presented to
The School of Graduate Studies
Drake University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education

by
David J. Kissinger
August 1975

THE RELATIONSHIP BETWEEN SEX EDUCATION PROGRAMS AND
DROPPING OUT OF HIGH SCHOOL DUE TO PREGNANCY

by

David J. Kissinger

Approved by Committee:

Dr. W. C. Williams
Chairman

Dr. Howard Traxler

Dr. Earle L. Canfield
Dean of the School of Graduate Studies

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
Chapter	
1. STATEMENT OF THE PROBLEM	1
2. STATEMENT OF LIMITATIONS	3
3. REVIEW OF THE LITERATURE	5
Sex Education	5
The High School Dropout Problem	17
4. QUESTION	26
5. OBSERVATIONAL METHODS AND PROCEDURES	27
General Design	27
Validation of the Instrument	28
Population and Sample	29
Data and Instrumentation	30
Analysis	31
Time Schedule	32
6. FINDINGS OF THE STUDY	33
7. DISCUSSION	40
BIBLIOGRAPHY	46
APPENDIXES	49
A. LETTER REQUESTING DATA FROM SAMPLE SCHOOLS	50
B. SEX EDUCATION QUESTIONNAIRE	51
C. SCHOOLS USED TO VALIDATE THE QUESTIONNAIRE	53
D. THE SAMPLE SCHOOLS SURVEYED	54

LIST OF TABLES

TABLE	Page
1. Results of the Validation of the Instrument.	29
2. Schools that Returned the Questionnaire.	33
3. Drop Out Rate Due to Pregnancy--Schools That Do Not Offer Sex Education.	35
4. Drop Out Rate Due to Pregnancy--Schools That Do Offer Sex Education.	37

Chapter 1

STATEMENT OF THE PROBLEM

Problem

This field report will attempt to determine if a relationship exists between enrollment in sex education courses or programs and dropping out of school due to pregnancy.

Rationale

During the investigator's four years of teaching a sex education class to ninth grade social studies students in Ankeny, Iowa, he has often been confronted by fellow educators with the problem of the high incidence of school dropouts due to pregnancy. Therefore an interest developed in discovering whether or not a relationship existed between dropout rates due to pregnancy and the fact that the dropout had or had not taken a sex education course at some time during her secondary school years. Experts agree that the subject needs to be studied.

The need for research data on the effectiveness of sex education is clearly apparent. Programs in some areas have been in operation for a sufficient time to assess their impact on the social ills which motivated their implementation. Assessment must not be in terms of knowledge acquired but rather in terms of effect on acceptable or unacceptable sexual behavior.¹

¹George H. Gumm, "Sex Education: Time for Appraisal," The Clearing House, 46 (October, 1971), 111.

If this field study shows that female students who take a sex education course during high school drop out of school less frequently than those who do not take such a course, then the findings should be brought to the attention of public secondary school officials. If such were the case, a curriculum addition might be made in schools where no sex education course is currently offered. Conversely, if there is no difference between the dropout rates of schools where sex education is taught and those where it is not taught, then the course offered in the former should be examined as it relates to the needs of the students.

Chapter 2

STATEMENT OF LIMITATIONS

Invalid inferences may occasionally be drawn from data through which relationships are presented. For this reason, the investigator has cited the following limitations to his study:

1. The study will show the relationship between attendance in sex education programs and dropping out of school due to pregnancy. The study is not intended to convince the reader that any or all sex education programs have either a positive or negative correlation with dropping out of school due to pregnancy.

2. The study focuses upon the number of female students only who have dropped out of school due to pregnancy. The study does not take into account all of the males who have left school as a result of fathering a child.

3. The results of the study present the situation for a limited number of public high schools in Iowa only. These schools constitute less than twenty-five percent of the total Iowa public high schools.

4. It is not intended that inferences be made for other high schools in Iowa or other states on the basis of the results gathered for this study.

5. It is important to note that students often drop out of school while pregnant but give reasons other than

pregnancy for leaving school. This investigator has gathered data only on those female students who gave pregnancy as their reason for dropping out of school.

Chapter 3

REVIEW OF THE LITERATURE

Sex Education

Much of the uneasiness caused by the teaching of sex education courses arises from the fact that disagreement exists as to what sex education actually is. E. E. LeMasters states,

A broad program of health education, at all educational levels should be offered young Americans, and it should cover the human body, the mind, the emotions, love, and sex.¹

Mary S. Calderone, Director, Sex Information and Education Council of the United States, says that sex education is more than sex instruction.

People in our country have terrible hang ups in regards to sexuality; it is the norm. Sex education deals with morals. Sex education is an ongoing process from birth.²

Secondary schools have a responsibility in the area of sex education. It is an opportunity not only to impart knowledge but also allow discussion with peers.³

¹E. E. LeMasters, Robert Lewis, and John J. Burt, "A Cool Look at Sex Education; A Forum," The P.T.A. Magazine, 65 (December, 1971), 2.

²Mary S. Calderone, "Sex Education for the Whole Society," Education Digest, 37 (October, 1971), 43.

³Ibid., p. 45.

A large number of schools that do not offer a specific program in sex education agree with the position that is advocated by J. L. Donaldson.

Let's dispel the myth that sex education is a recent addition to the school program and that some schools have it and some don't. All schools have always taught something about sex. If it evades questions bearing on sex, . . . if it fails to recognize differences or interactions between boys and girls, then the school teaches that sexuality is ugly, bad,¹ or shameful. And that, too, is sex education.

Sex education is not new and must be recognized as an integral part of the school curriculum.²

Topics that are commonly discussed or studied in sex education programs include:

1. aspects of selecting a partner for marriage
2. the institution of marriage
3. making a successful marriage
4. dating and courtship
5. care and training of children
6. petting
7. masturbation
8. premarital sexual relations
9. birth control

¹J. L. Donaldson, "Innovative Programs in Sex Education," Education Digest, 36 (April, 1970), 46.

²Frank E. McGuigan, "Social Revolution and Sex Education," The Clearing House, 43 (March, 1969), 424.

10. abortion
11. the birth process
12. sexual deviance¹

When a topic is proposed for inclusion in the curriculum of a particular school system, good reasons should exist for the addition, or needs of students that will be met by the new course should be stated. Thus there should be reasons for including sex education in the curriculum.

According to the Tenth Yearbook, A.A.S.A., N.E.A., there are six important reasons for including complete sex education in public-school curriculum: 1) The emancipation of women made them free members of our present-day society; 2) modern living has led to greater mobility of population and more anonymity than has been known previously; 3) the increased development of contraceptives and prophylactics has created a problem in itself; 4) advancements in the field of psychology have led to increased knowledge and realization of the importance of frustrations; 5) there are more sex stimuli in modern movies, theatre, advertising, magazines, and even popular songs; 6) an increased difference of opinion on matters of sex conduct leads to a need for guidance in such matters.²

It is interesting to note the similarities in goals or objectives that have been offered by various authors.

J. L. Donaldson states the following goals for sex education programs:

1. Preparation of students for responsible family life
2. Preparation of teens for adolescence

¹Edward W. Smith, Stanley W. Krouse, and Mark M. Atkinson, editors, The Educator's Encyclopedia (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1961), p. 346.

²Ibid., p. 344.

3. Assistance in peer relationships
4. Promote communication between parents and children
5. Development of a moral code based on knowledge.¹

The following goals for sex education programs are taken from The Educator's Encyclopedia.

1. Development of good mental health
2. Assist in the adjustment to adulthood and life
3. Development of a contributing citizen in a family situation
4. Concern with physical, emotional, social, moral, and intellectual development.²

Similarities in objectives help explain the similarities that do exist in most sex education programs.

Two methods of instruction for sex education have been advocated by various educators. Many schools follow the approach of implementing a sex education program at specific stages in the curriculum. Units or entire courses are specifically designated so that it becomes obvious that sex education is being taught. The second approach is a rather "wholistic" approach. Information relating to sexuality is included in many existing courses. These courses are not specifically called sex education courses. As an example, many biology instructors introduce the subject by discussing the anatomy of small animals and conclude by discussing the anatomy of man. Both methods are satisfactory; it is merely

¹Donaldson, op. cit., p. 48.

²Smith, Krouse, and Atkinson, op. cit., p. 343.

a matter of preference of the institution.¹

Peter M. Collins is an educator who favors the wholistic approach. Sex and sexual behavior involve value decisions. Man needs to have knowledge to assist him in making these value judgments and decisions. Collins feels that a separate sex education course need not be taught. Sex education should be integrated into existing courses, assuming that these courses currently are meeting needs of the students.² Frank E. McGuigan also advocates integrating sex education into existing curriculum.³

John Flatter and John J. Pietrofesa favor the use of a designated sex education course or unit. Schools have a responsibility to assist in bringing about an awareness to the changing sexual attitudes of society. "Sex involves attitudes and values."⁴ Flatter and Pietrofesa feel that teachers not only teach sex education but also convey attitudes and feelings to their students about sex. The sex education

¹Calderone, loc. cit.

²Peter M. Collins, "Sex Education in the Secondary Curriculum: Problems and Pseudo-Problems," School and Society, 99 (October, 1971), 358.

³McGuigan, op. cit., p. 423.

⁴John Flatter and John J. Pietrofesa, "Human Sexuality: What is the School's Role," The Clearing House, 47 (October, 1972), 71.

teacher is a model in the eyes of the student.¹

Some schools wish to segregate male and female students while other schools stress that sex education classes should be integrated. Segregated classes may encourage freedom of discussion that is sometimes difficult to obtain in integrated classes. Segregated sex education classes lack verbal and non-verbal interaction between the sexes which destroys one of the basic purposes of sex education programs.²

It should be noted that although most educators advocate one of these basic approaches, very few educators critically attack the approach not being used by their system. Educators seem to be in agreement that each school must view their own particular needs and then decide on an approach to follow.

Any discussion concerning sexual behavior of our population today is certain to lead to controversial debate. Some theorists feel that the country is in the midst of a sexual revolution as can be evidenced by high illegitimate birth rates and divorce rates. Other theorists contend that the youth of today are more open and honest in his feelings and assessment of sexual behavior. With many conflicting thoughts present, it is no wonder that sex education is a

¹Ibid.

²Smith, Krouse, and Atkinson, op. cit., p. 345.

"hotbed of controversy in many schools."¹

Although the teaching of sex education is controversial in many schools, there are those communities that share the opinion of Frank E. McGuigan. "The ultimate responsibility rests with the educational leadership of the school."²

McGuigan believes that the school can have a powerful influence on the behavior of our youth.

The educator understands that the Pill, the changing religious values, the necessity for women to supplement the income of men, the changing nature of the family, and the population problem are a sampling of the social forces out of which the cry for sex education has arisen.³

Other experts are quick to emphasize that sex education is the job of all community institutions. George H. Gumm states that schools cannot solve the problem by themselves. Assistance is needed from other influencing agencies, especially the family.⁴

Many experts feel that sex education is needed now more than ever because of the conflicting ideas that exist concerning sexuality in our society. Calderone states, "It has become clear that, given the tremendous diversity of

¹George H. Gumm, "Sex Education: Time for Appraisal," The Clearing House, 46 (October, 1971), 110.

²McGuigan, op. cit., p. 421.

³Ibid., p. 422.

⁴Gumm, op. cit., p. 111.

sexual attitudes and behaviors in the United States, some unification is needed regarding knowledge and attitudes about human sexuality."¹ LeMasters continues by saying, "For a long time American elders have chosen to base sexual morality on fear and ignorance."² These problems can be even more difficult for girls. "Girls are pressured not only by boys but by a prevailing atmosphere that presupposes that sex is inevitable."³ These experts are saying that all students need to know the true facts in regard to human sexuality.

Some of the critics of sex education believe that the knowledge received by the students will cause the students to engage in more promiscuous behavior. Reiss has suggested that youth is already assuming more responsibility for their own sexual standards and behavior.⁴ In a recent study at Cornell University Medical School by Dr. Milton Leving, it was shown that sex education did not stimulate promiscuity.⁵ Youth exposed to sex education programs possess the knowledge

¹Calderone, loc. cit.

²LeMasters, Lewis, and Burt, loc. cit.

³Shelly Steinman List, "When Our Daughters Discover Love and Sex," McCall's, 65 (September, 1973), 102.

⁴Flatter and Pietrofesa, op. cit., p. 72.

⁵LeMasters, Lewis, and Burt, op. cit., p. 3.

to make crucial decisions about some of the sexual decisions that confront the students.¹

The question of appropriate sexual behavior still presents the majority of our youth with a major problem. As an example, fifty-two percent of America's teenagers are engaging in premarital sex.² Problems are experienced because the knowledge of many teenagers about sex is riddled with misconceptions. Birth control and abortion are topics that present problems to teenagers and doctors in their business dealings. Doctors differ in their views on prescribing the pill without parental consent.³ This can create problems for our teenagers.

A recent study by Planned Parenthood, conducted by Johns Hopkins University, revealed that of the young women ages 15 to 19 who are having sexual intercourse, more than half of them failed to use any form of contraception the last time they had relations.⁴

Generally when value judgments and decisions are involved, there is likely to be disagreement between interested parties. There have been many attacks made against the teaching of human sexuality. This was especially true during the 1960's. However, in the last five years, most of the evaluation of sex education programs has supported the teaching of sex education.

Court cases have been presented in many states for the

¹Ibid., p. 4.

²List, loc. cit.

³Ibid., p. 100.

⁴Ibid., p. 103.

purpose of prohibiting schools from teaching about sex. Recent court rulings have been made to offer direction in the area of sex education. "To date, the courts stand virtually 100 percent behind those boards of education that offer sex education programs in the public schools."¹ It is obvious that the highest judicial body in our country has favored sex education in the schools.

Support for sex education programs comes from a number of other sources and for a number of different reasons. Many educators agree with Calderone in her statement that it is the responsibility of the school to offer a good sex education program.

Secondary schools have a primary responsibility in education for mature, responsible sexuality. The evidence of emotional and sexual difficulties and problems in this age group is overwhelming. . . in terms of pregnancies and venereal disease.²

Many concerned individuals support the programs because of the belief that the programs are vital in the transmitting of facts and destroying common misconceptions about sex. The school can serve this function better than any other institution. Flatter and Pietrofesa have found that most information received by students about sex prior to taking a sex education course comes from the peer group.

¹Chester M. Nolte, "Why School Boards are Winning Sex Education Battles," Education Digest, 39 (October, 1973), 43.

²Calderone, op. cit., p. 45.

A great deal of this information is either incorrect or dangerous to the student.¹

Support for sex education seems to be nationwide.

National surveys have indicated approximately 70 percent support for the concept of sex education without attention to the particular program.²

It should be noted that sex education programs seem to receive their greatest objection from conservative communities where religious pressures are exerted against the concept of discussing sex outside of the home.³

Many educators who criticize sex education programs do not actually disagree with the concept of sex education. These educators feel that the programs are rather ineffective in halting socially unacceptable sexual behaviors. Lewis states, "A recent study by Gerald H. Wiechman and Altis L. Ellis found that exposure to formal sex education had little effect on premarital petting or intercourse."⁴ Gumm also feels that sex education programs should be questioned as to their value in stopping venereal disease and illegitimacy.⁵

¹Flatter and Pietrofesa, op. cit., pp. 72-73.

²Gumm, loc. cit.

³LeMasters, Lewis, and Burt, op. cit., p. 4.

⁴Ibid., p. 2.

⁵Gumm, op. cit., p. 111.

Thus there has been a shift in the opposition toward sex education programs. Early opposition was centered around the teaching of a social value in the public school. Present opposition is centered around the accountability of the program in stopping undesirable sexual behavior.

Concerned parents are usually the greatest critics of sex education programs. Often the parents feel that the school is attempting to assume the role of parent in giving sexual values to the students. This is not the purpose of most sex education programs. Calderone states that sex education just assists the parents in their job of teaching about human sexuality. Programs have been particularly beneficial in assisting the student in sex role identification and personal management of sexual behavior.¹ Thus it is the job of the parent to be aware of what is being taught in the community's school regarding sex.² Above all, the parents should work in conjunction with the school.

Parents, it would seem, do not have the exclusive constitutional right to teach their children about sex matters in their own homes to the extent that such instruction outlaws similar teachings in public schools.³

Parents are not immune to criticism because of their

¹Calderone, op. cit., p. 44.

²Smith, Krouse, and Atkinson, op. cit., p. 343.

³Nolte, op. cit., p. 45.

apparent failure to communicate with their offspring about sex. Flatter and Pietrofesa stress, "Schools must help provide answers to sexually oriented questions because the students are not getting the answers from their parents."¹

Many times, problems with sex arise because of a difficulty in communication between parents and children in regard to the subject.² These statements seem to support the idea that the family is losing its importance as an influential conveyor of values to youth. The parents can be of tremendous value in communication of acceptable ideas and behaviors in regard to sex. Robert Lewis notes, "The parents as a major source of sex education seemed to be much more effective with female than male children in producing traditionally valued sexual behavior."³

The High School Dropout Problem

The problem of secondary school dropouts has been extensively researched and discussed in publications. This investigator noted that most of the writings centered around three topics: 1) characteristics of school dropouts, 2) reasons why students drop out of school, 3) programs established for school dropouts. Many people who write about the

¹Flatter and Pietrofesa, op. cit., p. 73.

²List, loc. cit.

³LeMasters, Lewis, and Burt, op. cit., p. 3.

dropout problem mention that dropout due to pregnancy creates a severe problem for society. Other authors discuss the characteristics of these pregnant dropouts. Dropout programs for pregnant students exist in many sections of our country. However, little is currently being done to attempt to identify students who fit the pattern of future pregnant dropouts. Special care should be made to insure that students identified as future pregnant dropouts receive sex education before pregnancy takes place. Currently, the "disease" is being treated, not the cause of the "disease."

In a study of pregnant students in the Detroit Public School System, Mike Syropoulous explains,

The concept that the pregnant teenager requires the best treatment the school and the community can provide is neither understood nor well accepted by the public, which still frequently pins a scarlet letter on her. The prevailing policy in public school systems throughout the country requires that the student₁ drop out of school as soon as known or shown.¹

Syropoulous feels that to dismiss the pregnant student is not the answer to our problems. Although the emphasis varies in many programs for pregnant dropouts, most programs do include educational, medical, and social services. These programs are thought to be a partial solution to the dropout problem. The general objective of these programs is to keep

¹Mike Syropoulous, Evaluation of the Program to Continue the Education of Girls Who Must Leave School Because of Pregnancy (Detroit: ERIC Document Reproduction Service, ED 059 329, 1971), p. 2.

the girl in school so that she will not become a burden on society.¹

Stanley W. Kruger states, "Problems concerning high school dropouts . . . seem to have always been with us."² It is also quite true that man has always been troubled by socially unacceptable sexual behavior. It is evident that female students will continue to drop out of school due to pregnancy. Syropoulous relates that twice as many females leave school because of pregnancy as for all other medical and physical reasons combined.³ Kruger states that, on a national basis, one of five potential high school graduates drops out of school. "It is simple that no cause-and-effect relationship explains why some students leave school."⁴ It is known that most students that do leave school leave for one of two reasons: alienation or disability. Pregnancy is considered a form of disability. It is the objective of schools today to reduce all forms of student alienation and disability.⁵

There have been many studies designed to determine

¹Syropoulous, loc. cit.

²Stanley W. Kruger, "They Don't Have to Drop Out," American Education, 5 (October, 1969), 6.

³Syropoulous, loc. cit.

⁴Kruger, op. cit., p. 7.

⁵Ibid., pp. 7-8.

the common characteristics that are present in school dropouts. Relatively few studies have been made of females who dropped out of school due to pregnancy. The investigator feels that all studies can have value if they help to determine potential dropouts. Although sex education is important for all students, programs are a necessity for individuals who fit the pattern of a "typical" dropout.

The University of Michigan's Institute for Social Research conducted a very extensive study concerned with common characteristics of school dropouts. The sample consisted of 2,313 tenth grade male students. A five year span was used for the study. Five common characteristics were cited: 1) The dropout was from a lower socio-economic background than the majority of the students at each school. 2) Intelligence test results and grade point average for dropouts was below average levels. 3) The dropout ratio for students with past scholastic academic failure was thirty percent greater than for those students with no past failure. 4) Dropouts scored below average on self esteem scales when tested. 5) Dropouts ranked above average in the number of delinquent behaviors, both in and out of school.¹

The Moore, Oklahoma, School System has developed a program that attempts to identify potential dropouts during

¹Kendrick Frazier, "Dropping Out of School: Problem or Symptom," Science News, 100 (November 6, 1971), 30.

the first four years of school. Members of Project STAY found that certain behaviors are present in dropouts since they joined the educational system. The behaviors included: 1) irregular attendance, 2) poor reading skills, 3) social withdrawal, and 4) physical problems.¹ It was discovered that approximately three percent of all students in grades one through three in Moore, Oklahoma, possessed all of these characteristics.²

Other studies of school dropouts confirm the findings of the previously mentioned studies. Richard H. Levine, director of Baltimore's dropout program, states, "Potential dropouts have economic problems, health problems, and academic problems."³ It is most interesting to note that "every problem child" is being raised by his mother or grandmother in the Baltimore study.⁴ In a review of the ghetto dropout problem, Stewart Cohen says, "A vast preponderance of dropouts are recruited from the lower socioeconomic strata, specifically, the lower-class Negro community."⁵

¹Janice Zeaman, "Building Stay-in-School Power," American Education, 10 (March, 1974), 12.

²Ibid., p. 13.

³Richard H. Levine, "Reaching Out to Danny," American Education, 6 (July, 1970), 10.

⁴Ibid., p. 11.

⁵Stewart Cohen, "The Ghetto Dropout," The Clearing House, 44 (October, 1969), 118.

The previously mentioned studies have value in locating potential dropouts. However, studies of pregnant female dropouts present somewhat different characteristics of dropouts and are perhaps more valuable for this investigator. Two studies are especially significant. It is the opinion of this investigator that readers should carefully examine these two studies.

As a representative of the Detroit Public School System, Mike Syropoulous headed a program that attempted to allow pregnant females to continue their education. Much psychological testing was administered to the members of the program. The Mooney Problem Check List was administered to all members. It is interesting to note that courtship, sex, and marriage presented the largest problem to both seventh through ninth and tenth through twelfth grade groups.¹

Syropoulous discovered that a general personality structure did exist for the majority of the females studied. It is also interesting to note those characteristics present that are similar to earlier studies that were mentioned. Personality characteristics are: 1) Few had happy, healthy relationships with parents. 2) Most had dominating mothers. 3) Most subjects had large interpersonal problems. 4) Self-punishment was present often. 5) Students rated low in self esteem. 6) The girls had a great need for emotional warmth.

¹Syropoulous, op. cit., p. 11.

7) The majority of females lived with their mothers only. 8) Most females did not have a strong affection for the baby's father. The mothers desired the baby, not necessarily the father. 9) A fear of the birth process existed. 10) A hostility toward siblings was present. 11) Most students were resentful to authority. 12) Sex was viewed as rather matter of fact, not a beautiful experience. 13) The educational level of the girls was about one grade level below their actual placing.¹ The investigator feels that most females studied could be characterized as rather weak and emotionally insecure people.

Elizabeth M. Goodman conducted a study with more than 500 pregnant female dropouts in Washington, D.C. The following characteristics were discovered: 1) More than three-fourths of the girls were under age sixteen when they gave birth. 2) Greater than fifty percent of the girls were in junior high school. 3) More than seventy percent of the sample came from families that included at least five members. 4) About half of the girls lived in broken homes, most of which were headed by the mother.²

The prevailing attitude that exists among many

¹Ibid., pp. 12-14.

²Elizabeth M. Goodman, A Multi-Disciplinary Approach to a School-Centered Rehabilitation Program for Pregnant School-Age Girls in Washington, D.C. (Washington, D.C.: ERIC Document Reproduction Services, ED 024 168, 1966), pp. 21-24.

educators is that dropping out of school is just a culmination of problems that have developed throughout the entire educational career. Earnest Hilton states,

Dropping out of high school is just the culmination of a number of unfavorable experiences that have happened throughout the school career. It is only at the high school level that the student is old enough to drop out.¹

These conclusions have further convinced the investigator that it is essential to try to locate and work with potential dropouts while they are still in elementary school.

It is much easier for experts in this area to describe the problem and the typical dropout than it is to find concrete solutions to the problem. A number of good suggestions for solution have been offered and will be reviewed. Levine feels that it is most important for the community to offer support to the idea that school is valuable and needed. If students feel that school is an obstacle to be hurdled before working at the factory or on the farm, the educational experience will have limited meaning to the student.² Kruger states that many students drop out of school because the curriculum is not relevant to the present needs of the students. Relevant courses such as sex education and family living are being designed and included in school curriculums

¹Earnest Hilton, "When Does Dropping Out Begin?," Education Digest, 28 (March, 1973), 26.

²Levine, loc. cit.

in an attempt to help keep potential dropouts in school.¹ Hilton feels that too much credit or blame is placed on institutions outside of the school system. He feels that involvement with teachers and students is the key to keeping more students in school.² Hilton lists four strategies to help keep potential dropouts in school.

1. Schools should be able to show the sense and purpose of what is being taught in the classroom.
2. It is important that each child feel he is important while he is in the educational setting.
3. School experiences should be structured to insure success for the potential dropout.
4. The schools must work more closely with the parents to help keep students in school.³

Programs have been established in many parts of the country to either help identify potential dropouts or help return the dropouts to school. Successful programs have been established in such cities as Dayton, Ohio; Moore, Oklahoma; Washington, D.C.; Detroit and Baltimore. Many of these programs receive federal funding. These programs usually concentrate on the following areas:

1. Teacher-Learner Interaction
2. Instructional Environment
3. Curriculum Content
4. Instructional Methodology⁴

Most of these programs attempt to enlist the help of all important community institutions.

¹Kruger, op. cit., pp. 7-8.

²Hilton, loc. cit.

³Ibid., p. 27.

⁴Kruger, op. cit., p. 8.

Chapter 4

QUESTION

The following question will be answered by the proposed study:

1. Does a relationship exist between enrollment in sex education courses or programs and dropping out of school due to pregnancy?

Chapter 5

OBSERVATIONAL METHODS AND PROCEDURES

General Design

The first step in this study was to design a questionnaire to be sent to the schools included in the sample. The device was to assist school administrators or counselors in determining if a program exists in their school that meets the classifications of a sex education program. Permission was sought from the administrators for factual information in regard to the number of female students in their school who dropped out of school due to pregnancy and the percent of these dropouts who took the sex education program at some time during her secondary school years. Names of the students were not requested.

Upon receiving the completed questionnaires from the sample, the investigator rank ordered the statistics received according to the following categories:

1. The percent of students who dropped out of school due to pregnancy, who attended a school where sex education was taught, but who did not take the course.

2. The percent of students who dropped out of school due to pregnancy, who attended a school where sex education was taught, and who had taken the course.

3. The percent of female students who dropped out of school due to pregnancy, and who attended a school where sex

education was not taught.

Tables for each category were constructed.

Upon completion of the field study, the results of the study were sent to all schools who complied and sent information to the investigator. The conclusions were sent to the Iowa State Department of Public Instruction.

Validation of the Instrument

Prior to distributing the questionnaire to the schools included in the sample, attempts were made by the author to validate the instrument. Schools included in the population but not included in the sample were selected for the purpose of validation. These schools were the middle three schools in each group of twenty-five schools (12, 13, 14, 62, 63, 64, etc.). A total of twenty-seven schools received the questionnaire. Appendix C contains a list of schools that received the questionnaire for validation purposes.

Table 1 shows the results of the validation procedure. Upon examination of the results by the author and Dr. Richard Brooks, Professor of Education, Drake University, Des Moines, Iowa, it was evident that the instrument measured the data that were requested by the investigator. Therefore the instrument was recognized as having sufficient validity for use in this study.

Table 1

Results of the Validation of the Instrument

	Schools Reporting	Number of Female Students	Number of Dropouts	Number of Dropouts Who Had Taken Sex Education
Schools That Offer Sex Education	6	691	12	4
Schools That Do Not Offer Sex Education	13	1750	18	0

Population and Sample

The population for this study consisted of Iowa Public High Schools. The high schools were ranked by assigning number one to the school with the largest daily membership. The selection process involved identifying groups of 25 schools based on ranks. Those selected were schools with ranks 26-50, 76-100, 126-150, 176-200, 226-250, 276-300, 326-350, 376-400, 426-450, 476-500. Schools included in the population but not in the sample were schools with ranks 1-25, 51-75, 101-125, 151-175, 201-225, 251-275, 301-325, 351-375, and 401-425.

The sampling procedure was selected for several reasons. A large sample was selected. It was the intention of the author to sample a large number of schools that had a sex education course in their curriculum. Size of the school was

not to be a factor as schools of all size were represented. A sample which represented all geographical regions in Iowa was desired. It was also felt that this sample would represent communities having many different religious and cultural viewpoints regarding sex education.

Data and Instrumentation

Data for this field study were compiled from one source, a questionnaire. The author constructed the questionnaire, after which it was submitted for review by an advisor and other specialists. Necessary revisions were made. The questionnaire was then pre-tested by administering it to twenty schools not selected for the sample. Necessary revisions were then made.

The questionnaire was designed to assist the investigator in deriving conclusions to the questions expressed for the purposes of this study. The choice of possible responses was limited to make the scoring as objective as possible. The questionnaire contained the following major sections:

1. Explanation of the purposes and intended uses of the questionnaire.
2. Assessment of curriculum to determine if the sample schools had a sex education program at the secondary level.
3. Number of high school dropouts due to pregnancy during the 1973-1974 school year.

4. The percent of students who dropped out of school due to pregnancy and took a sex education course at some time during their high school career.

Schools were divided into two groups upon return of the questionnaires. One group consisted of those schools that did offer a sex education program while the other group consisted of those schools that did not offer a sex education program.

Analysis

The investigator used the questionnaire to construct the following tables:

1. The percent of schools that offer a sex education course was given. The table was divided into groups of schools using the rank given that school as explained previously.

2. The percent of students who dropped out of school due to pregnancy was given. Schools were divided according to size and the fact that a sex education course was or was not offered.

3. The percent of the girls who had taken a sex education course at some time during their high school career and had dropped out of school due to pregnancy was given. Schools were again to be divided according to size.

These tables allowed the investigator to determine if a relationship did exist between enrollment in sex education courses and dropping out of school due to pregnancy.

Time Schedule

1. Approval for the project	3 weeks
2. Construction of the questionnaire	1 week
3. Evaluation of the questionnaire by experts	2 weeks
4. Preparation of the questionnaire and sending of the questionnaire to the sample	11 weeks
5. Return of the questionnaire by the sample	8 weeks
6. Telephone calls to those schools that failed to return the questionnaire	2 weeks
7. Plotting the graphs and computing the data	1 week
8. Final preparation of the project	12 weeks
9. Final submission for approval and typing	4 weeks
10. Delineation of materials to the sample schools	1 week
	<hr/>
	35 weeks

Chapter 6

FINDINGS OF THE STUDY

Receipt of the Data From the Sample

Table 2 gives a summary of the data received from the schools included in the sample. Schools were ranked according to size using average daily membership. Groups of twenty-five consecutively ranked schools received the instrument. A total of two hundred and twenty-five schools in Iowa were used for the study.

Table 2

Schools That Returned the Questionnaire

School Groups	Do Not Offer Sex Education	Offer Sex Education	Returned Questionnaire But No Facts Reported	Did not Return Questionnaire
26- 50	4	5	0	16
76-100	9	7	2	7
126-150	6	1	2	16
176-200	6 (25)	6	0	13
226-250	6	6 (25)	0	13
276-300	5	9	0	11
326-350	4	8	0	13
376-400	7	6	0	12
426-450	4	3	0	18
Totals	51	51	4	119

A total of one hundred and six schools returned the questionnaire to the investigator. This total is equal to 44.22 percent of all schools included in the sample. Of the schools that returned the instrument, fifty-one schools, or 22.67 percent of the sample, stated that they did not offer a sex education program. The same number of schools reported that they did offer a sex education program that was acceptable by the standards established for this study. Four schools, or .88 percent of the sample, returned the questionnaire but failed to supply any data.

An equal number of schools reported in each group. Therefore, both groups were divided into two subgroups. One subgroup consisted of the largest twenty-five schools by population in each group. The other subgroup included the smaller twenty-six schools by population.

Drop Out Rates for Schools That Do Not Offer Sex Education

The results of the data received from the questionnaires of Iowa public high schools included in the sample that do not offer a sex education program are included in Table 3. Subgroup A consisted of the twenty-five largest schools that reported. The schools came from the largest one hundred schools that were surveyed. Subgroup B consisted of the remaining twenty-six schools which were members of the smallest one hundred and twenty-five schools surveyed.

Table 3

Drop Out Rate Due to Pregnancy--Schools That Do Not
Offer Sex Education

School Groups	Schools Reported	Number of Female Students	Number of Dropouts
Subgroup A			
26- 50	4	1479	19
76-100	9	1818	25
126-150	6	956	5
176-200	6	813	10
Subgroup B			
226-250	6	696	3
276-300	5	458	7
326-350	4	318	4
376-400	7	450	7
426-450	4	192	3
Total	51	7180	83

A total of five thousand and sixty-six female students were included in Subgroup A. Of this group, fifty-nine female students left high school due to pregnancy. This is 1.16 percent of the students in Subgroup A. A total of 529 thousand one hundred and fourteen female students comprised Subgroup B. Of this group, twenty-four female students left high school due to pregnancy. This is 1.13 percent of the students in Subgroup B.

When data are compiled for both Subgroups, a total of seven thousand one hundred and eighty female students attended the sample schools that did not offer a sex education program. Of this total, eighty-three female students dropped out of school due to pregnancy. Of the total group, 1.15 percent were pregnant dropouts.

Drop Out Rate Due to Pregnancy for Schools That Do Offer Sex Education

The results of the data received from the questionnaires of Iowa public high schools included in the sample that do offer a sex education program are included in Table 4. Subgroup A consisted of the twenty-five largest schools that reported. These came from the largest one hundred and twenty-five schools surveyed. Subgroup B consisted of the remaining twenty-six schools that came from the smallest one hundred schools surveyed.

A total of five thousand three hundred and twenty-eight students comprised Subgroup A. Of this group, seventy female students, or 1.31 percent, were forced to drop out of high school due to pregnancy. Of the total of seventy dropouts in Subgroup A, forty-six female students, or .86 percent of Subgroup A, had been exposed to a sex education program prior to dropping out of school. A total of one thousand eight hundred and fifty-six students comprised Subgroup B. Of this group, seventeen female students, or .91 percent of Subgroup B, were forced to drop out of high school due to

pregnancy. Of the seventeen dropouts in Subgroup B, seven female students, or .38 percent of Subgroup B, had been exposed to a sex education program prior to dropping out of school.

Table 4

Drop Out Rate Due to Pregnancy--Schools That Do Offer Sex Education

School Groups	Schools Reported	Number of Female Students	Number of Dropouts	Number of Dropouts Who Had Taken Sex Education
Subgroup A				
26- 50	5	2260	27	23
76-100	7	1551	25	19
126-150	1	134	2	0
176-200	6	881	6	3
226-250	6	636	10	1
Subgroup B				
276-300	9	736	7	1
326-350	8	616	6	4
376-400	6	354	2	2
426-450	3	150	2	0
Total	51	7184	87	53

When data are compiled for both Subgroups, a total of seven thousand one hundred and eighty-four female students attended the sample schools that did offer a sex education program. Eighty-seven pregnant female students were forced

to leave schools that did offer a sex education program. This dropout figure is equal to 1.21 percent of the total female population of these schools. Of the eighty-seven pregnant dropouts, fifty-three had previously been exposed to a sex education program. This total is equal to .74 percent of the female student population in schools that do offer a sex education program.

A Comparison of Dropout Rates of Schools That Do Offer Sex Education Programs Versus Schools That Do Not Offer Sex Education Programs

The purpose of this field study was to determine if a relationship existed between attendance in sex education programs and leaving school due to pregnancy. By examining the results recorded in the Table 3 and Table 4 data, it was possible to derive some conclusions. A listing of statistical comparisons follows:

1. The same number of schools (51) reported for both groups.
2. About the same number of students were included in both groups. There were seven thousand one hundred and eighty students who attended schools where sex education programs were not offered. There were seven thousand one hundred and eighty-four students who attended schools where sex education programs were offered.
3. The percent of the total student population that dropped out of schools due to pregnancy was greater in schools where sex education was offered (1.21 percent) than

in schools where sex education programs were not offered (1.15 percent).

4. The percent of the student population that had been exposed to sex education and left school due to pregnancy (.74 percent) was less than the percent of pregnant dropouts in schools where sex education was not offered (1.15 percent).

Chapter 7

DISCUSSION

One hundred six schools out of a total sample of two hundred twenty-five schools returned the questionnaire. Thus a large percentage (44.22 percent) of schools reported.

The investigator had hoped to derive dropout data for approximately the same number of female students from schools that did offer a sex education program and from schools that did not offer a sex education program. This was achieved in that only four more female students attended schools where sex education programs were offered (7184 female students) than attended those schools where programs were not offered (7180 female students).

It was also felt that the results of the data would be more representative of the entire population as the number of females studied increased. The study represents fourteen thousand three hundred and sixty-four (14,364) female students in Iowa public high schools. The investigator believes that the results of the data for these students would be consistent with dropout figures due to pregnancy for all female students in Iowa public high schools. It is also realistic to assume that the figures for the 1973-1974 school year would be similar to those dropout figures of any school year.

The purpose of this field study was to see if a relationship existed between enrollment in sex education courses or programs and dropping out of school due to pregnancy. This investigator discovered that there does indeed appear to be a relationship. Data from two sources in this study indicate that the dropout rate is lower for female students who are exposed to sex education than for those students who are not exposed. The dropout rate due to pregnancy for female students exposed to sex education courses is .74 percent. This dropout rate is lower than that of female students who dropped out of school at institutions where sex education was not offered. This dropout rate was 1.15 percent.

It is important to realize that the total percent of females dropping out of school due to pregnancy is greater in schools where sex education programs are offered than is the dropout rate in schools where no sex education is offered. One and twenty-one hundredths percent (1.21 percent) of the female population dropped out of schools due to pregnancy in schools where sex education was offered. This is .06 percent greater than the dropout rate for females in schools that do not offer sex education. It can therefore be concluded that the dropout rate is lower for former sex education students even if the overall dropout rate due to pregnancy at their school is higher.

Perhaps some readers will argue that the dropout figures represent too small a proportion of the total female enrollment

to yield significant differences. It is true that the dropout rate for students in schools that do not offer a sex education course is only .41 percent higher than for those students who have been exposed to sex education. However if we can assume that the data would be consistent for all schools included in the sample and that we could have exposed all female students in all schools to sex education, then the total number of dropouts could have been reduced from one hundred and seventy to one hundred and eight dropouts. (This figure was determined by first multiplying the number of female students not exposed to sex education (7184) by the percent of students who dropped out of school due to pregnancy and had been exposed to sex education (.74 percent). This total number of students (54) was added to the number of students (53) who had dropped out of school and had been exposed to sex education). Thus it is possible to consider the reduction in the overall number of pregnant dropouts by sixty-two students if all students in both groups had been exposed to sex education.

It was not the purpose of this field study to "prove" that attendance in sex education programs was the most important factor in determining if a female student would or would not become pregnant and then be forced to leave school. However, it is interesting to note that students who had been exposed to sex education enjoyed a lower dropout rate due to pregnancy in both the investigator's field study and in

attempts to validate the questionnaire. The dropout rate for students who had been exposed to sex education programs in the validation study was .57 percent. The dropout rate for those who had not been exposed to sex education in the validation study was 1.03 percent. Again it is interesting to note that the total dropout rate for schools in the validation study that did offer sex education (1.74 percent) was higher than the rate for schools in the validation study that do not offer sex education (1.03 percent). These findings are consistent with the findings of the larger field study.

It is rather interesting to note that a greater percent of the largest two hundred schools that reported did not offer a sex education program whereas a greater percent of the smallest two hundred and twenty-five schools that reported did offer sex education. Future studies could be conducted to investigate if there is a relationship that exists between enrollment size of schools attended and dropping out of school due to pregnancy.

A number of questions concerning the accountability of sex education programs were raised in the investigator's review of related literature. Wiechman and Ellis found that exposure to formal sex education had little effect on the amount of participation in sexual intercourse.¹ Gumm stated

¹E. E. LeMasters, Robert Lewis, and John J. Burt, "A Cool Look at Sex Education: A Forum," The P.T.A. Magazine, 65 (December, 1970), 2.

that programs should be questioned as to their ability to stop illegitimacy.¹ It is impossible to determine from this field study if exposure to sex education programs did stop the incidence of intercourse at all. However it is possible to say that the chances of a female dropping out of school due to pregnancy in the schools studied are lower if she has been exposed to sex education. Thus it is apparent that: 1) These girls were engaging in intercourse less frequently, or 2) Conception was occurring in these girls less frequently, or 3) These girls were using more effective birth control methods, or 4) These girls were having more abortions.

Dr. Leving's study at Cornell University Medical School stated that sex education did not stimulate promiscuity.² Sexual promiscuity implies more than just becoming pregnant. It is true that the overall percent of students dropping out of school due to pregnancy is greater in schools that reported and did offer sex education. It is also true that the dropout rate is lower for those who did take sex education compared to those students who did not take sex education. Perhaps we could conclude that sex education caused the students in this study to become more promiscuous. If that were the case, then sex education also may have caused

¹George H. Gumm, "Sex Education: Time for Appraisal," The Clearing House, 46 (October, 1969), 111.

²LeMasters, Lewis, and Burt, op. cit., p. 3.

them to become more "careful" so pregnancy did not occur.

Two points will be raised by this investigator in conclusion. This investigator does not feel that the value of education is not controlling human behavior; rather, the benefit of education is in allowing all humans to increase control over the destination of their own lives. Sex education alone will not stop young couples from engaging in pre-marital sexual relations. Because of exposure to sex education, the negative physical and emotional results of pre-marital sexual relations may be minimized.

The investigator also feels that there is tremendous value in all human life. If our public educational system can include programs in the curriculum that will help lessen the physical and mental damage that besets students, then it is mandatory that such a program be offered.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Books

Smith, Edward W., Stanley W. Krouse, and Mark M. Atkinson, eds. The Educator's Encyclopedia. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1961.

2. Periodicals

Calderone, Mary S. "Sex Education for the Whole Society," Education Digest, 37 (October, 1971), 43-45.

Cohen, Stewart. "The Ghetto Problem," The Clearing House, 44 (October, 1969), 118-121.

Collins, Peter M. "Sex Education in the Secondary Curriculum: Problems and Pseudo-Problems," School and Society, 99 (October 1971), 357-359.

Cooley, E. Wayne, Executive Secretary. "Regular Member School Enrollment," 1974 Iowa Girls' High School Athletic Union Bulletin, 58 (1974), 11-15.

Donaldson, J. L. "Innovative Programs in Sex Education," Education Digest, 36 (April, 1970), 46-48.

Flatter, John, and John J. Pietrofesa. "Human Sexuality: What is the School's Role," The Clearing House, 47 (October, 1972), 71-74.

Frazier, Kendrick. "Dropping Out of School: Problem or Symptom," Science News, 100 (November 6, 1971), 30-32.

Gumm, George H. "Sex Education: Time for Appraisal," The Clearing House, 46 (October, 1971), 110-111.

Hilton, Earnest. "When Does Dropping Out Begin?" Education Digest, 38 (March, 1973), 26-27.

Kruger, Stanley W. "They Don't Have to Drop Out," American Education, 5 (October, 1969), 6-8.

LeMasters, E. E., Robert Lewis, and John J. Burt. "A Cool Look at Sex Education: A Forum," The P.T.A. Magazine, 65 (December, 1970), 2-5.

Levine, Richard H. "Reaching Out to Danny," American Education, 6 (July, 1970), 10-14.

- List, Shelly Steinman. "When Our Daughters Discover Love and Sex," McCall's, 65 (September, 1973), 100-104.
- McGuigan, Frank E. "Social Revolution and Sex Education," The Clearing House, 43 (March, 1969), 421-424.
- Nolte, M. Chester. "Why School Boards are Winning Sex Education Battles," Education Digest, 39 (October, 1973), 43-45.
- Zeaman, Janice. "Building Stay-in-School Power," American Education, 10 (March, 1974), 12-16.

3. Research Projects

- Goodman, Elizabeth M. A Multi-Disciplinary Approach to a School-Centered Rehabilitation Program for Pregnant School-Age Girls in Washington, D.C. Washington, D.C.: ERIC Document Reproduction Service, ED 024 168, 1966.
- Syropoulous, Mike. Evaluation of the Program to Continue the Education of Girls Who Must Leave School Because of Pregnancy. Detroit: ERIC Document Reproduction Service, ED 059 329, 1971.

APPENDIXES

APPENDIX A

LETTER REQUESTING DATA FROM SAMPLE SCHOOLS

TO: High School Administrators, Guidance Counselors,
Instructors

FROM: Dave Kissinger, Graduate Student, Drake University

Dear Educators:

For the past five years, I have been an instructor of sex education in the Ankeny Community School System. I am concerned about the manner in which the content of such courses relates to the daily lives of students. If effective, sex education course content should offer social as well as interpersonal implication for students.

Although birth control efforts are effecting a decrease in the number of unwanted pregnancies among high school students, many female students are lost each year due to pregnancy. In consequence to my interest in the effectiveness of sex education in the schools and to my concern for the number of students who leave school due to pregnancy, I am investigating the relationship between the existence of sex education courses in selected schools and the number of female students who leave these schools due to pregnancy.

My intentions are to investigate the relationship only. I do not intend to infer cause nor effect. Needless to say, I will not release any data that could be identified as having been submitted by a given school.

Data compiled and general conclusions reached by the investigation will be sent to the participating schools and to the Iowa Department of Public Instruction. Your assistance will be sincerely appreciated.

Thank you,

Dave Kissinger

APPENDIX B
SEX EDUCATION QUESTIONNAIRE

SCHOOL _____ INSTRUCTOR'S NAME _____

LOCATION _____ Teaching Position _____

1. Smith, Krouse, and Atkinson list twelve topics that are included in most sex education programs. (See list below) The investigator has determined that schools meeting the following criteria will be included in the present study:
 - A. At least seven of the topics listed by Smith, Krouse, and Atkinson¹ must be included in the specific course or program.
 - B. The course must be offered at the high school level.
 - C. The course or program should involve at least nine weeks of classroom time.

Please check those topics included in your school's specific sex education program or course.

- _____ A. Aspects of selecting a partner for marriage
- _____ B. The institution of marriage
- _____ C. Making a successful marriage
- _____ D. Dating and Courtship
- _____ E. Care and training of children
- _____ F. Petting
- _____ G. Masturbation
- _____ H. Premarital Sexual Relations
- _____ I. Birth Control
- _____ J. Abortion
- _____ K. The birth process
- _____ L. Sexual Deviance

If your school meets the criteria listed for inclusion in the present study, please answer all of the following questions. If your school does not meet these criteria please answer only questions #2 and #3.

2. Give the number of female students who attended your high school during the 1973-74 school year.

¹Edward W. Smith, Stanley W. Krouse, Mark M. Atkinson, editors, The Education Encyclopedia (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1961), p. 346.

3. Determine the number of school dropout students at your high school who were reported to be pregnant during the 1973-74 school year. _____
4. What percent of the total number of female students in your high school were exposed to the sex education program during the 1973-74 school year? _____
5. What percent of the 1973-74 dropout students reported to be pregnant had been exposed to the sex education program before leaving school? _____

Please return to: Dave Kissinger
1014 Belmont Drive
Ankeny, Iowa 50021

APPENDIX C

SCHOOLS USED TO VALIDATE THE QUESTIONNAIRE

<u>RANK IN SIZE</u>	<u>NAME OF SCHOOL</u>
12	Dubuque Hempstead
13	Marshalltown
14	Burlington
62	Washington
63	Estherville
64	Knoxville
112	South Winneshiek
113	Williamsburg
114	Maple Valley
162	Riceville
163	Rockford
164	Belmond
212	Hartley
213	Lawton-Bronson
214	Woodbury Central
262	Alburnett
263	Rockwell-Swaledale
264	HLV (Victor)
312	Clay Central
313	Stratford
314	Janesville
362	Plainfield
363	Meriden-Cleghorn
364	South Clay
412	Van Meter
413	Garwin
414	Murray

APPENDIX D

THE SAMPLE SCHOOLS SURVEYED

<u>RANK IN SIZE</u>	<u>NAME OF THE SCHOOL</u>
26	Des Moines Hoover
27	Sioux City North
28	Waterloo East
29	Sioux City West
30	Newton
31	Waterloo Central
32	Iowa City West
33	Des Moines North
34	Iowa City, City High
35	Fort Madison
36	Harlan
37	Charles City
38	Keokuk
39	Urbandale
40	Ankeny
41	Southeast Polk
42	Boone
43	Fairfield
44	Manchester, West Delaware
45	Indianola
46	LeMars
47	Oskaloosa
48	Epworth, Western Dubuque
49	Grinnell
50	Waverly-Shell Rock

RANK IN SIZENAME OF THE SCHOOL

76	Albia
77	Clear Lake
78	Perry
79	Humboldt
80	Denison
81	Washington, Vinton
82	Davis County, Bloomfield
83	Chariton
84	Decorah
85	Washington, Cherokee
86	Iowa Falls
87	Anamosa
88	Sheldon
89	Algona
90	Red Oak
91	Monticello
92	Eagle Grove
93	Benton Community, Van Horne
94	Audubon
95	Glenwood
96	Winterset
97	Pella
98	Forest City
99	Emmetsburg
100	Linn-Mar

<u>RANK IN SIZE</u>	<u>NAME OF THE SCHOOL</u>
126	Mid-Prairie, Wellman
127	Clarion
128	West Liberty
129	West Marshall
130	Adel
131	Sibley
132	Wapsie Valley, Fairbank
133	Mount Vernon
134	Mount Ayr
135	Lake Mills
136	Roland-Story
137	M.F.L., Monona
138	Mediapolis
139	Johnston
140	Griswold
141	Central, Argyle
142	West Sioux, Hawarden
143	Northeast, Goose Lake
144	West Lyon
145	Sac
146	Sioux Center
147	Prairie, Gowrie
148	Sumner
149	South Hamilton, Jewell
150	Cardinal

RANK IN SIZENAME OF THE SCHOOL

176	Solon
177	Nashua
178	East Buchanan, Winthrop
179	Belle Plaine
180	Milford
181	Bedford
182	Rockwell City
183	Eddyville
184	Wilton
185	Guthrie Center
186	Colfax
187	North Central, Manly
188	Columbus, Columbus Junction
189	LaPorte City
190	Denver
191	North Tama, Traer
192	Madrid
193	Edgewood-Colesburg, Edgewood
194	East Union, Afton
195	North-Linn, Coggon
196	Marcus
197	Ida Grove
198	North English English Valleys
199	Wapello
200	Ackley-Geneva

<u>RANK IN SIZE</u>	<u>NAME OF THE SCHOOL</u>
226	Valley, Elgin
227	Montezuma
228	Keota
229	Harmony
230	Bellevue
231	Waukee
232	Woodward-Granger
233	Greene
234	Pleasantville
235	Fremont Mills, Tabor
236	Akron
237	Clarence-Lowden
238	Laurens
239	Nora Springs-Rock Falls
240	North Mahaska
241	Paullina
242	Adair-Casey
243	Reinbeck
244	George
245	Central City
246	Highland, Riverside
247	Boyden-Hull
248	Fremont
249	Kee, Eastern Allamakee
250	Dunkerton

RANK IN SIZENAME OF THE SCHOOL

276	LDF
277	East Greene
278	Allison-Bristow
279	Hinton
280	Eastwood
281	Charter Oak-Ute
282	Albert City-Trusdale
283	AvoHa
284	Twin Cedars
285	Graettinger
286	Anita
287	Schleswig
288	Coon Rapids
289	Mormon Trail, Garden Grove
290	Prairie City
291	Moravia
292	Floyd Valley
293	Semco, Gilman
294	Center Point
295	Anthon-Oto
296	Exira
297	Buffalo Center
298	Fayette
299	Seymour
300	Manilla

<u>RANK IN SIZE</u>	<u>NAME OF THE SCHOOL</u>
326	Elk Horn-Kimbalton
327	Hamburg
328	Dexfield
329	Farragut
330	Sentral
331	Preston
332	Ventura
333	Garnavillo
334	Irwin
335	Glidden-Ralston
336	Baxter
337	Gilmore City-Bradgate
338	Willow, Quimby
339	Lone Tree
340	Remsen-Union
341	Orient-Macksburg
342	Gladbrook
343	Clarkesville
344	Moulton-Udell
345	Lisbon
346	Mar-Mac
347	South Page
348	Melcher-Dallas
349	Malvern
350	United, Boone

<u>RANK IN SIZE</u>	<u>NAME OF THE SCHOOL</u>
376	Crestland
377	Klemme
378	YJB
379	Maxwell
380	Central Dallas
381	Amana
382	Bennett
383	Stanton
384	Scranton
385	Shelby-Tennant
386	Olin
387	Radcliffe
388	Meservey-Thornton
389	Wellsburg
390	Boone Valley
391	Rolfe
392	Primghar
393	Fonda
394	Lohrville
395	Little Rock
396	Pomeroy
397	Cedar Valley
398	Sioux Rapids
399	Mallard
400	Colo

RANK IN SIZENAME OF THE SCHOOL

426	Walnut
427	Herbert Hoover, Toledo
428	Whiting
429	Dayton
430	Ruthven
431	Burt
432	Urbana
433	Lost Nation
434	Bayard
435	Russell
436	Hedrick
437	Deep River-Millersburg
438	Morning Sun
439	Melvin
440	Ayrshire
441	Arnolds Park
442	Grand
443	Fox Valley
444	Galva
445	Oxford Junction
446	Ledyard
447	Havelock-Plover
448	Battle Creek
449	Marathon
450	New Providence